DOCUMENT RESUME

ED 229 975 EC 152 539

AUTHOR Walker, Mary Pat; Baker, C'Anne
TITLE What's So Important about Water?
PUB DATE Apr 83
NOTE 8p.; Paper presented at the Annual International Convention of The Council for Exceptional Children (61st, Detroit, MI, April 4-8, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Elementary Secondary Education; *Severe Disabilities; *Stimulation; *Swimming; Task Analysis
IDENTIFIERS *Water Learning Programs

ABSTRACT

A method of water learning (teaching low level motor coordination in water, rather than on land) has been developed for stimulating the growth and skills of severely handicapped students. The model, which attempts to elicit natural developmental responses to the environment, incorporates task analysis of developmental preswimming sequences beginning with a single continuum and evolving through stages. One of the principal benefits of the water learning program is the stimulation of developmental growth not only in motor skills (such as extended range of motion or head control), but also in classroom gains in behavior, motivation, academic achievement, and speech stimulation. A data collection system provides information on individual progress and program accountability. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Mary Pat Walker
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED229975

WHAT'S SO IMPORTANT ABOUT WATER?

By: Mary Pat Walker, Director
C'Anne Baker, Co-director
Project Waterschool, a developmental system for learning in the water.
Box 71
Wilson, Wyoming 83014

In the cost accountability of our educational system, some programs are more justifiable than others. The ones which win our educational dollars seem to be those with the most prolific data. Although often the only difference in accountability between a water program and those better funded portions of a curriculum is the task analysis used to quantify return on the dollar, water programs tend to be regarded as a luxury rather than a necessity. The need for justification for a water program based on data reflecting educational gains is not lacking; task analysis, corresponding to the lowest level motor coordination to which land skills have been analyzed, are (Caplan, 1973, 1977).

Traditionally, water programs are structured for high developmental levels. They stress instruction of strokes, or ordered sets of behavior, which are specialized to the water, i.e. the crawl stroke. This emphasis on teaching skills requiring highly coordinated motor coordination can obscure the underlying benefits of water. What appears when the task analysis is extended low enough to register natural response, instead of specialized swim skills, is the tremendous amount that water stimulates development.

The authors first saw this stimulation of natural response in our work with infants in the 1970's. We subconsciously incorporated infant techniques as part of our teaching style when working with the handicapped long before we understood why. While struggling to produce our own low level task analysis, we finally realized that

EC152539

what we were searching for was stimulation. At this point, our conscious emphasis became water learning, not swimming. We began to see ourselves as observers in a development process, rather than instructors in a learning process.

Our job in the water is to facilitate, more than to define the process of development. We are not trying to teach swimming, any more than we "teach" walking. We are trying to elicit natural developmental responses to the environment, instinctual responses versus structured behavior. We are not trying to impose an artificially designed behavior, but to elicit the same developmental behaviors we are eliciting on land. If we look at swimming only in terms of stroke instruction, its recreational, physical, social and safety benefits, however marvelous, are only visible/measurable on higher developmental levels - given the tools we have for measurement. If we concentrate solely on teaching, we are not fully using what the medium of water can do for us.

These realizations led us to continue our low level task analysis, and led us to the concept of a system into which a person could enter according to developmental ability. Elicited behaviors, with instructor as facilitator, have nothing to do with chronological age, or previous experience in the water, but with developmental growth. Student's behavior is no longer regarded as a sequence structured by the traditional concepts of swimming. With instructors in the role of facilitator/observors, behaviors are viewed as a developmental sequence of events and leave room for individualized developmental growth.

Waterschool

In 1979, the authors conducted a statewide survey of school districts and preschools for handicapped children. We found that schools, both those with and those without swimming programs, recognized the potential benefits of water learning, but were facing the same problems - the broad spectrum of handicapping conditions, a

shortage of professional staff, sporatic attendance and the need for recordkeeping and data collection systems.

In 1980, the Wyoming State Department of Education lent its support to the project in the form of funding through Title VI-B. The Project objections were to design and test a system which would fill these needs.

During fiscal years 1980 - 83, we developed a method for water learning that has been used successfully by both experienced and inexperienced instructors in school districts residential centers, and preschool programs in Wyoming. The model incorporates developmental sequences which are task analyzed into small steps and provides instructors with a system for:

1. teaching low level skills (such as flexion, relaxation and synchrony) to accomodate students who are functioning at an infant level;
2. teaching classes with mixed developmental levels;
3. determining a child's entry level into the swim program;
4. maintaining a record of pupil progress independent of point testing or regularity of attendance.

We began with a single continuum - a teaching sequence reflecting the task analysis we had already designed - and evolved through stages, focusing in turn on several important aspects of the learning process. These concepts remain the underlying basis for the system as it is today:

1. The individual rate of movement through a sequence based on the interest and talents as well as the developmental phase of the student;

2. The pre-performance experiencing of skill - like training wheels, an important boost to learning, not only in a patterning sense, but in a psychological one (the experiencing of success);

3. The individual choices and combination of skills. Whether or not his choices fall in the traditionally accepted learning order, or into traditional stroke combination, the learner can find things that work in the water for him, i.e., a natural dolphin is an instinctual reaction which often preceeds stroke instruction.

As the system exists now, the theoretical base is still the single continuum. The task analysis has become six teaching sequences, each a specific developmental viewpoint of the water experience and the continuum of skill. In other words, not only is the infant developmentally incapable of sophisticated coordination required for the crawl stroke, but more importantly, the lowest level task analysis teach skills that have already been assimilated by those who enter at a higher developmental phase. For instance, work on infant head control is unnecessary with a mature adult.

We are working, not only with "swim" skills, in a task analysis like this one in order to create a sequence low enough for our students functioning at an infant level. We are in fact dealing with pre-swimming skills - those which your low functioning students are working on anyway. The water is a fantastic stimulating agent. The students "wake-up" in it. They become very active - they love it. you can expect to see new behavior.

The side benefits are the true benefits for the inclusion of water component in a curriculum. In spite of our personal convictions and the evidence so well docu-

mented by AAHPERD, the American Red Cross and the YMCA as to the physical, social and mental benefits, we were surprised at the amount of enthusiastic and unsolicited feedback from the 12 pilot programs we field tested in Wyoming. Not only were there the motor gains (extended range of motion, head control) which can be recorded on the system, but there were classroom gains (behavior, motivation, academic progress, as well as stimulation of first speech) which the teachers working with the children were convinced was related to their involvement in the water. We have watched it in our own program, documented by the new classroom aides each year as they see a change in the classroom performance with the onset of the Waterschool program - which for logistic reasons always begins a month or so after school starts.

A poolside data sheet has been designed to serve as a record keeping device. It is a laminated grid of the teaching sequence on which pupil progress can be recorded daily. The student's progress is recorded on three levels of performance (totally assisted, self-initiated with some aid, solo) for each task in the sequence. We use a simple shorthand [/] for observation of the first three successful completions, [ ] for the second observation of three successes. This data collection system has served to meet our accountability needs, first to the school and its needs for data without the hazards for point testing, the student's bad day, the pressures of testing; or the waste of instructional time involved. Second to our own organizational needs as instructors, enabling us to know where the student is despite irregular attendance and allowing us to work with students on deferring levels within a given class. Third and most importantly, it is a reminder of our commitment to the student, allowing his progression at his individual rate along an individual path.

What's so important about water? It is our conviction that the primary benefit of a water learning program is the stimulation of developmental growth. We do not consider water learning an extra. The recreational benefits, while not to be taken

lightly - especially in those cases where it is the only arena in which an individual can gain recognition for his performance - are not the justification for a water program.

Paper presented at the Annual Convention of the
Council for Exceptional Children
61st, Detroit, MI, April 4-8, 1983